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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/118,010 07/17/98 YAMAZAKI S 0756-1838

MMC2/1011  
SIXBEY FRIEDMAN LEEDOM & FERGUSON  
2010 CORPORATE RIDGE  
SUITE 600  
MCLEAN VA 22102

EXAMINER

GUERRERO, M

ART UNIT

PAPER NUMBER

2822

DATE MAILED:

10/11/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/118,010

Applicant(s)

YAMAZAKI ET AL.

Examiner

Maria Guerrero

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2000.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 11-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some \* c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☒ received in Application No. (Series Code / Serial Number) 08/962,840.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

## Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 14, 17.
- 18) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

**DETAILED ACTION**

This Office Action is in response to the Amendment filed July 20, 2000.

Claims 9-10 are canceled.

Claims 1-8, 11-37 are pending.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 11-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakai et al. (U.S. 5,055,899) in view of Takenouchi et al. (U.S. 5,427,961).

Regarding claims 1-8, 11-37, Wakai et al. discloses an inverted staggered TFT having a pixel electrode, an insulating substrate 101, a gate insulating film 103, and a semiconductor film 104 (amorphous silicon or the like) (col. 4, lines 15-30, col. 5, lines 40-45). Wakai et al. teaches an insulating film 108 can be comprising polyimide or an acrylic resin over a semiconductor layer 104 (col. 6, lines 2-10), a transparent electrode 110 made of ITO is a pixel electrode, and source and drain (106 and 107). Wakai et al. teaches the first insulating film 108a being used to flatten the uneven surface above the insulating substrate (fig. 7, col. 7, lines 48-57).

Wakai et al. fails to disclose the substrate consisting of: polyethylene terephthalate, polyethylene naphthalate, polyethylene sulfite and polyimide as claimed. Wakai fails to show the resinous material consisting of: methyl ester of acrylic acid, ethyl ester of

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acrylic acid, butyl ester of acrylic acid and 2-ethyhexyl ester of acrylic acid as claimed.

However, this is known in the art as evidenced Takenouchi et al.

Takenouchi et al. discloses a semiconductor device having a resinous substrate, the resinous substrate made of polyester (e.g., PET (polyethylene terephthalate)), polyimide, fluoroplastic, PES (polyethylene sulfone) (col. 3, lines 49-55). Takenouchi et al. also teaches a resinous layer provided on the resinous substrate including an acrylic resin (e.g. methyl acrylate ester, ethyl acrylate ester, butyl acrylate ester, and 2-ethyhexyl acrylate ester (col. 3, lines 55-60). In addition, Takenouchi et al. discloses providing the film on the substrate with the purpose of leveling the initial surface irregularities (col. 4, lines 10-15).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Wakai et al's semiconductor device by specify the use of the materials suggested by Takenouchi et al. The modification would provide a low cost semiconductor device easily handled having a larger field of application and free from oligomeros (Takenouchi et al., col. 1, lines 15-25, col. 3, lines 20-25).

### ***Response to Arguments***

Applicant's arguments filed July 20, 2000 have been fully considered but they are not persuasive. Claim Rejections 35 USC 103 are maintained. The amendment does not overcome the Rejections.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention

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where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Takenouchi et al. suggested that flexible organic resin film substrates can be more easily handled as compared with glass substrate (col. 1, lines 10-20).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "forming a resinous interlayer insulating layer by a coating method at lower temperatures than those employed PCVD", "reduce the undesirable effects of bending on the TFT") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Guerrero whose telephone number is (703) 305-0162. The examiner can normally be reached on Monday-Friday from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead, can be reached on (703) 308-4940. The fax phone number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

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October 6, 2000



WAEEL FAHMY  
SUPERVISORY PATENT EXAMINER  
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